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| EXAMINER |
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DANIEL JR, WILLIE J

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| ART UNIT | PAPER NUMBER |
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2686

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/853,126

Applicant(s)

LEMLEY, BRAD

Examiner

Willie J. Daniel, Jr.

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-9 and 11-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-9 and 11-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to applicant's amendment filed on 27 April 2005. **Claims 1-4, 6-9, 11-16** are now pending in the present application.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the Claims 1 and 6 feature "...at least one illumination source proximate to the at least one integral navigation and alphanumeric key, the at least one illumination source configured to distinguish between the alphanumeric mode and the navigation scheme by illuminating the at least one integral navigation and alphanumeric key being in the navigation mode" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to

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obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Regarding applicant's Fig. 1 drawing submitted on 27 April 2005, the limitation of the claim states, "...at least one illumination source proximate to the at least one integral navigation and alphanumeric key..." and applicant argues on pg. 5, sec. 1, "Wood does not teach location or proximity and the drawings do not reflect the location of the illuminating light...", the Examiner respectfully disagrees. Although the Fig. 1 drawing appears to show the navigation mode as indicated by applicant on pg. 2, 1st paragraph, the Examiner requests applicant to show support of the location of the claimed illuminating source that applicant states is not supported by the applied references which have a lighting source(s) to illuminate the keys. Therefore, the objection is maintained until further clarification is provided by applicant which explains the location of the illumination source claimed by applicant.

3. This list of examples is not intended to be exhaustive.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-9, 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hao (US 6,437,709 B1) in view of Wood et al. (hereinafter Wood) (US 6,810,271 B1) and Andre (US 5,950,809).

Regarding **Claim 1**, Hao discloses a mobile handset keypad comprising an array of keys positioned on a surface of a mobile housing for user interface with the mobile (see abstract; col. 5, line 53 - col. 6, line 24; col. 7, lines 4-11; Figs. 4-15), said array of keys comprising:

a plurality of alphanumeric keys that operate in an alphanumeric mode (see col. 5, line 53 - col. 6, line 24; Figs. 4-15), where the keyboard illustrates having an alphanumeric key;

a navigation scheme having at least one integral navigation and alphanumeric key configured to navigate in a navigation mode (see col. 5, line 53 - col. 6, line 24; Figs. 4-15);

to distinguish between the alphanumeric mode and the navigation scheme the at least one integral navigation and alphanumeric key being in the navigation mode (see abstract; col. 5, line 53 - col. 6, line 24; col. 7, lines 4-11; Figs. 4-15), where the keys provide alphanumeric and navigation operations for the alphanumeric mode and the navigation scheme. Hao fails to disclose having the features through a plurality of menus; at least one illumination source proximate to the at least one integral navigation and alphanumeric key, the at least one

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illumination source configured by illuminating being in the navigation mode. However, the examiner maintains that the features through a plurality of menus; at least one illumination source proximate to the at least one integral navigation and alphanumeric key was well known in the art, as taught by Wood.

In the same field of endeavor, Wood discloses the features through a plurality of menus (see col. 2, lines 43-53; Figs. 2-4); at least one illumination light which reads on the claimed "illumination source" proximate to the at least one central key (24, 44) which reads on the claimed "integral navigation and alphanumeric key" (see col. 4, lines 31-35; col. 2, lines 43-53, 62-64; col. 3, lines 1-7, 43-46; Figs. 2-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hao and Wood to have the feature through a plurality of menus; at least one illumination source proximate to the at least one integral navigation and alphanumeric key, in order to provide easier movement by allowing the user to keep his or her thumb poised on the navigation key and, every time a numeral is to be pressed, the distance that the user moves his thumb is substantially the same, as taught by Wood (see col. 1, lines 59-64). The combination of Hao and Wood fails to disclose having the feature the at least one illumination source configured by illuminating being in the navigation mode. However, the examiner maintains that the feature the at least one illumination source configured by illuminating being in the navigation mode was well known in the art, as taught by Andre.

In the same field of endeavor, Andre discloses the feature the at least one polarized light source ('47' - light -emitting diode) which reads on the claimed "illumination source" configured by illuminating being in the second mode which reads on the claimed "navigation mode" (see col. 2, lines 12-32,39-40; col. 2, line 66 - col. 3, line 10; Figs. 1-4), where the mobile telephone (11) has modes of operation in which the keys (23) are illuminated with symbols indicating the functions according to the operation mode.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hao, Wood, and Andre to have the feature the at least one illumination source configured by illuminating being in the navigation mode, in order to reduce the size of the apparatus and regroup various functions under multifunction keys by having a mode change that selectively lights the keys, as taught by Andre (see col. 1, lines 48-60).

Regarding **Claim 2**, the combination of Hao, Wood, and Andre discloses every limitation claimed, as applied above (see claim 1), in addition Hao further discloses the mobile keypad of claim 1 further comprising a control key which reads on the claimed "toggle key" for toggling between the alphanumeric and the navigation mode (see col. 5, line 53 - col. 6, line 24; Figs. 4-15), where the control key is a multifunction key to change states between modes.

Regarding **Claim 3**, the combination of Hao and Andre discloses of the feature wherein said at least one integral navigation and alphanumeric key toggles between the alphanumeric and the navigation mode (see Hao - col. 5, line 53 - col. 6, line 24; Figs. 4-15), where the keys (e.g., key #2, 4, 6, 8 in Fig. 4) are multifunction keys that can provide

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alphanumeric and navigation function in which the keys are able to change functions by switching or toggling between the alphanumeric and navigation mode. The combination of Hao and Andre fails to disclose the feature key automatically toggles between the alphanumeric and the navigation mode based upon data input during user interface.

However, the examiner maintains that the feature key automatically toggles between the alphanumeric and the navigation mode based upon data input during user interface was well known in the art, as taught by Wood.

Wood further discloses the feature key (44) automatically toggles between the alphanumeric and the navigation mode based upon data input during user interface (see col. 2, lines 43-53,62-64; col. 3, lines 1-7,43-46; Figs. 2-4), where the key provides alphanumeric and character input and cursor and menu navigational movement according to user operation in which the automatically toggles would be inherent.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hao, Wood, and Andre to have the feature key automatically toggles between the alphanumeric and the navigation mode based upon data input during user interface, in order to provide easier movement by allowing the user to keep his or her thumb poised on the navigation key and, every time a numeral is to be pressed, the distance that the user moves his thumb is substantially the same, as taught by Wood (see col. 1, lines 59-64).

Regarding **Claim 4**, the combination of Hao, Wood, and Andre discloses every limitation claimed, as applied above (see claim 1), in addition Hao further discloses wherein

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said at least one integral navigation and alphanumeric key (see abstract; col. 5, line 53 - col. 6, line 24; Figs. 4-15) comprises:

a first integral navigation and alphanumeric key comprising an up navigation function and an alphanumeric function (see col. 5, line 53 - col. 6, line 24; Figs. 10-15), where the numeric key "2" provides up navigation;

a second integral navigation and alphanumeric key comprising a down navigation function and an alphanumeric function (see col. 5, line 53 - col. 6, line 24; Figs. 10-15), where the numeric key "8" provides down navigation;

a third integral navigation and alphanumeric key comprising a right navigation function and an alphanumeric function (see col. 5, line 53 - col. 6, line 24; Figs. 10-15), where the numeric key "6" provides right navigation;

a fourth integral navigation and alphanumeric key comprising a left navigation function and an alphanumeric function (see col. 5, line 53 - col. 6, line 24; Figs. 10-15), where the numeric key "4" provides left navigation.

Regarding **Claim 6**, Hao discloses a mobile handset (see abstract; col. 5, line 53 - col. 6, line 24; col. 7, lines 4-11; Figs. 4-15) comprising:

a microprocessor and menu display including software routines for creating and displaying a menu (see col. 5, line 53 - col. 6, line 24; Figs. 4-15), where the portable telephone has a display that shows characters, numbers, and/or menu according to the action of the keys in which the microprocessor would be inherent to provide the functions;

a housing including a front face with openings for touch keys and said display and containing said microprocessor (see col. 5, line 53 - col. 6, line 24; Figs. 4-15), where the

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portable telephone has keys and a display in which the housing, front face, and microprocessor would be inherent to provide the functions;

a plurality of switches within said housing (see col. 5, line 53 - col. 6, line 24; Figs. 4-15), where the portable telephone has keys in which the switches would be inherent to provide the operation of the each key when pressed or actuated.

a keypad within said housing comprising an array of keys projecting through the openings in the front face of said housing, each interacting with one corresponding switch (see col. 5, line 53 - col. 6, line 24; Figs. 4-15), where the array of keys correspond to a keypad within the housing that interact with switches to provide input and actions;

the array of keys (see abstract; col. 5, line 53 - col. 6, line 24; col. 7, lines 4-11; Figs. 4-15) including:

a plurality of alphanumeric keys that operate in an alphanumeric mode (see col. 5, line 53 - col. 6, line 24; Figs. 4-15), where the keyboard illustrates having an alphanumeric key;

a navigation scheme having at least one integral navigation and alphanumeric key configured to navigate in a navigation mode (see col. 5, line 53 - col. 6, line 24; Figs. 4-15);

to distinguish between the alphanumeric mode and the navigation scheme the at least one integral navigation and alphanumeric key being in the navigation mode (see abstract; col. 5, line 53 - col. 6, line 24; col. 7, lines 4-11; Figs. 4-15), where the keys provide alphanumeric and navigation operations for the alphanumeric mode and the navigation scheme. Hao fails to disclose having the features through a plurality of menus; at least one illumination source proximate to the at least one integral navigation and alphanumeric key, the at least one illumination source configured by illuminating being in the navigation mode. However, the

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examiner maintains that the features through a plurality of menus; at least one illumination source proximate to the at least one integral navigation and alphanumeric key was well known in the art, as taught by Wood.

Wood discloses the features

through a plurality of menus (see col. 2, lines 43-53; Figs. 2-4);

at least one illumination light which reads on the claimed "illumination source" proximate to the at least one central key (24, 44) which reads on the claimed "integral navigation and alphanumeric key" (see col. 4, lines 31-35; col. 2, lines 43-53, 62-64; col. 3, lines 1-7, 43-46; Figs. 2-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hao and Wood to have the feature through a plurality of menus; at least one illumination source proximate to the at least one integral navigation and alphanumeric key, in order to provide easier movement by allowing the user to keep his or her thumb poised on the navigation key and, every time a numeral is to be pressed, the distance that the user moves his thumb is substantially the same, as taught by Wood (see col. 1, lines 59-64). The combination of Hao and Wood fails to disclose having the feature the at least one illumination source configured by illuminating being in the navigation mode. However, the examiner maintains that the feature the at least one illumination source configured by illuminating being in the navigation mode was well known in the art, as taught by Andre.

Andre discloses the feature the at least one polarized light source ('47' - light - emitting diode) which reads on the claimed "illumination source" configured by illuminating

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being in the second mode which reads on the claimed "navigation mode" (see col. 2, lines 12-32,39-40; col. 2, line 66 - col. 3, line 10; Figs. 1-4), where the mobile telephone (11) has modes of operation in which the keys (23) are illuminated with symbols indicating the functions according to the operation mode.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hao, Wood, and Andre to have the feature the at least one illumination source configured by illuminating being in the navigation mode, in order to reduce the size of the apparatus and regroup various functions under multifunction keys by having a mode change that selectively lights the keys, as taught by Andre (see col. 1, lines 48-60).

Regarding **Claim 7**, the combination of Hao, Wood, and Andre discloses every limitation claimed, as applied above (see claim 6), in addition Hao further discloses the mobile handset of claim 6 further comprising a toggle key (e.g., control key) for toggling between the alphanumeric and the navigation mode (see col. 5, line 53 - col. 6, line 24; Figs. 4-15), where the control key is a multifunction key to change states between modes.

Regarding **Claim 8**, the combination of Hao and Andre discloses of the feature wherein the at least one integral navigation and alphanumeric key toggles between the alphanumeric and the navigation mode (see Hao - col. 5, line 53 - col. 6, line 24; Figs. 4-15), where the keys (e.g., key #2, 4, 6, 8 in Fig. 4) are multifunction keys that can provide alphanumeric and navigation function in which the keys are able to change functions by switching or toggling between the alphanumeric and navigation mode. The combination of Hao and Andre fails to disclose the feature key automatically toggles between the

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alphanumeric and the navigation mode based upon data input during user interface.

However, the examiner maintains that the feature key automatically toggles between the alphanumeric and the navigation mode based upon data input during user interface was well known in the art, as taught by Wood.

Wood further discloses the feature key (44) automatically toggles between the alphanumeric and the navigation mode based upon data input during user interface (see col. 2, lines 43-53,62-64; col. 3, lines 1-7,43-46; Figs. 2-4), where the key provides alphanumeric and character input and cursor and menu navigational movement according to user operation in which the automatically toggles would be inherent.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hao, Wood, and Andre to have the feature key automatically toggles between the alphanumeric and the navigation mode based upon data input during user interface, in order to provide easier movement by allowing the user to keep his or her thumb poised on the navigation key and, every time a numeral is to be pressed, the distance that the user moves his thumb is substantially the same, as taught by Wood (see col. 1, lines 59-64).

Regarding **Claim 9**, Hao discloses the mobile handset of claim 6 wherein the at least one integral navigation and alphanumeric key further includes symbols which reads on the claimed "indicia" thereon (see col. 5, line 53 - col. 6, line 24; Figs. 4-15), where the key includes the symbols (e.g., alphanumeric and direction). Hao fails to disclose having the feature the at least one illumination source comprising a backlighting panel illuminating the

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indicia. However, the examiner maintains that the feature the at least one illumination source was well known in the art, as taught by Wood.

Wood discloses the features the at least one illumination light which reads on the claimed "illumination source" (see col. 4, lines 31-35; col. 2, lines 43-53,62-64; col. 3, lines 1-7,43-46; Figs. 2-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hao and Wood to have the feature the at least one illumination source, in order to provide easier movement by allowing the user to keep his or her thumb poised on the navigation key and, every time a numeral is to be pressed, the distance that the user moves his thumb is substantially the same, as taught by Wood (see col. 1, lines 59-64). The combination of Hao and Wood fails to disclose the feature comprising a backlighting panel illuminating the indicia. However, the examiner maintains that the feature comprising a backlighting panel illuminating the indicia was well known in the art, as taught by Andre.

Andre further discloses the feature comprising a backlighting film which reads on the claimed "panel" illuminating the indicia (see col. 2, lines 12-32,39-40,50-60; col. 2, line 66 - col. 3, line 10; Figs. 1-4), where the mobile telephone has an illumination source (47) for lighting the keys.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hao, Wood, and Andre to have the feature comprising a backlighting panel illuminating the indicia, in order to reduce the size of

the apparatus and regroup various functions under multifunction keys by having a mode change that selectively lights the keys, as taught by Andre (see col. 1, lines 48-60).

Regarding **Claim 11**, the combination of Hao and Andre discloses of the feature toggle said combined navigation and alphanumeric key into navigation control mode (see Hao - col. 5, line 53 - col. 6, line 24; Figs. 4-15), where the keys (e.g., key #2, 4, 6, 8 in Fig. 4) are multifunction keys that can provide alphanumeric and navigation function in which the keys are able to change functions by switching or toggling between the alphanumeric and navigation mode. The combination of Hao and Andre fails to disclose the feature means for sensing user input data so as to automatically toggle. However, the examiner maintains that the feature means for sensing user input data so as to automatically toggle was well known in the art, as taught by Wood.

Wood further discloses the feature means for sensing user input data so as to automatically toggle (see col. 2, lines 43-53, 62-64; col. 3, lines 1-7, 43-46; Figs. 2-4), where the key (44) provides alphanumeric and character input and cursor and menu navigational movement according to user operation in which the means for sensing (e.g., processor or controller) and automatically toggles would be inherent.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hao, Wood, and Andre to have the feature means for sensing user input data so as to automatically toggle, in order to provide easier movement by allowing the user to keep his or her thumb poised on the navigation key and, every time a numeral is to be pressed, the distance that the user moves his thumb is substantially the same, as taught by Wood (see col. 1, lines 59-64).

Regarding **Claim 12**, the combination of Hao and Andre discloses of the feature toggle said combined navigation and alphanumeric key into alphanumeric mode (see Hao - col. 5, line 53 - col. 6, line 24; Figs. 4-15), where the keys (e.g., key #2, 4, 6, 8 in Fig. 4) are multifunction keys that can provide alphanumeric and navigation function in which the keys are able to change functions by switching or toggling between the alphanumeric and navigation mode. The combination of Hao and Andre fails to disclose the feature means for sensing user input data so as to automatically toggle. However, the examiner maintains that the feature means for sensing user input data so as to automatically toggle was well known in the art, as taught by Wood.

Wood further discloses the feature means for sensing user input data so as to automatically toggle (see col. 2, lines 43-53,62-64; col. 3, lines 1-7,43-46; Figs. 2-4), where the key (44) provides alphanumeric and character input and cursor and menu navigational movement according to user operation in which the means for sensing (e.g., processor or controller) and automatically toggles would be inherent.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hao, Wood, and Andre to have the feature means for sensing user input data so as to automatically toggle, in order to provide easier movement by allowing the user to keep his or her thumb poised on the navigation key and, every time a numeral is to be pressed, the distance that the user moves his thumb is substantially the same, as taught by Wood (see col. 1, lines 59-64).

Regarding **Claim 13**, the combination of Hao and Andre discloses of the feature toggle said combined navigation and alphanumeric key into alphanumeric mode (see Hao -

col. 5, line 53 - col. 6, line 24; Figs. 4-15), where the keys (e.g., key #2, 4, 6, 8 in Fig. 4) are multifunction keys that can provide alphanumeric and navigation function in which the keys are able to change functions by switching or toggling between the alphanumeric and navigation mode. The combination of Hao and Andre fails to disclose the feature means for automatically toggling. However, the examiner maintains that the feature means for automatically toggling was well known in the art, as taught by Wood.

Wood further discloses the feature means for automatically toggling (see col. 2, lines 43-53, 62-64; col. 3, lines 1-7, 43-46; Figs. 2-4), where the key (44) provides alphanumeric and character input and cursor and menu navigational movement according to user operation in which the means (e.g., processor or controller) for automatically toggling would be inherent.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hao, Wood, and Andre to have the feature means for automatically toggling, in order to provide easier movement by allowing the user to keep his or her thumb poised on the navigation key and, every time a numeral is to be pressed, the distance that the user moves his thumb is substantially the same, as taught by Wood (see col. 1, lines 59-64).

Regarding **Claim 14**, the combination of Hao, Wood, and Andre discloses every limitation claimed, as applied above (see claim 6), in addition Hao further discloses additionally comprising a dual function key and associated switch for sending stored dialing information and entering user input when in alphanumeric mode and alternatively selecting menu options when in navigation control mode (see col. 4, lines 21-37; Figs. 4-15), where

the “enter key” symbol (i.e., “SEND” key of conventional mobile - see Figs. 2-3 for symbol) provides the function of operation for sending dialing information from a directory or phone list and entering text while in alphanumeric mode and selecting from menu options while in navigation mode for phone operation in which the associated switch and operations would be inherent to provide the key functions.

Regarding **Claim 15**, the combination of Hao, Wood, and Andre discloses every limitation claimed, as applied above (see claim 6), in addition Hao further discloses additionally comprising a dual function key and associated switch for ending a telephone call when in alphanumeric mode and alternatively moving up in the menu hierarchy when in navigation control mode (see col. 6, line 20; Figs. 4-15), where the “clear key” symbol (i.e., “C” key of conventional mobile - see Figs. 2-3 for symbol) provides the function of operation for ending a telephone call while in alphanumeric mode and navigating or moving up to a higher menu while in navigation mode for phone operation in which the associated switch would be inherent.

Regarding **Claim 16**, Hao discloses of the mobile keypad with the features

- first integral navigation and alphanumeric key (see col. 5, line 53 - col. 6, line 24; Figs. 10-15), where the numeric key “2” provides up navigation and corresponding alphabets;
- second integral navigation and alphanumeric key (see col. 5, line 53 - col. 6, line 24; Figs. 10-15), where the numeric key “8” provides down navigation and corresponding alphabets;
- third integral navigation and alphanumeric (see col. 5, line 53 - col. 6, line 24; Figs. 10-15), where the numeric key “6” provides right navigation and corresponding alphabets;

fourth integral navigation and alphanumeric key (see col. 5, line 53 - col. 6, line 24; Figs. 10-15), where the numeric key "4" provides left navigation and corresponding alphabets. Hao fails to disclose having the features wherein the at least one illumination source comprises: a first illumination source proximate to the first integral navigation and alphanumeric key; a second illumination source proximate to the second integral navigation and alphanumeric key; a third illumination source proximate to the third integral navigation and alphanumeric; a fourth illumination source proximate to the fourth integral navigation and alphanumeric key. However, the examiner maintains that the feature wherein the at least one illumination source was well known in the art, as taught by Wood.

Wood discloses the feature wherein the at least one illumination light which reads on the claimed "illumination source" (see col. 4, lines 31-35; col. 2, lines 43-53,62-64; col. 3, lines 1-7,43-46; Figs. 2-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hao and Wood to have the feature wherein the at least one illumination source, in order to provide easier movement by allowing the user to keep his or her thumb poised on the navigation key and, every time a numeral is to be pressed, the distance that the user moves his thumb is substantially the same, as taught by Wood (see col. 1, lines 59-64). The combination of Hao and Wood fails to disclose having the features comprises: a first illumination source proximate to the first integral navigation and alphanumeric key; a second illumination source proximate to the second integral navigation and alphanumeric key; a third illumination source proximate to the third integral navigation and alphanumeric; a fourth illumination source proximate to the fourth integral

navigation and alphanumeric key. However, the examiner maintains that the features comprises: a first illumination source proximate to the first integral navigation and alphanumeric key; a second illumination source proximate to the second integral navigation and alphanumeric key; a third illumination source proximate to the third integral navigation and alphanumeric; a fourth illumination source proximate to the fourth integral navigation and alphanumeric key was well known in the art, as taught by Andre.

Andre further discloses the features comprises:

a first illumination source (47) proximate to the first integral key (23 - "numeric 2") (see col. 2, lines 39-40,47-53; col. 2, line 66 - col. 3, line 10; Figs. 1-4);

a second illumination source (47) proximate to the second integral key (23 - "numeric 8") (see col. 2, lines 39-40,47-53; col. 2, line 66 - col. 3, line 10; Figs. 1-4);

a third illumination source (47) proximate to the third integral key (23 - "numeric 6 key") (see col. 2, lines 39-40,47-53; col. 2, line 66 - col. 3, line 10; Figs. 1-4);

a fourth illumination source (47) proximate to the fourth key (23 - "numeric 4") (see col. 2, lines 39-40,47-53; col. 2, line 66 - col. 3, line 10; Figs. 1-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Hao, Wood, and Andre to have the features comprises: a first illumination source proximate to the first integral navigation and alphanumeric key; a second illumination source proximate to the second integral navigation and alphanumeric key; a third illumination source proximate to the third integral navigation and alphanumeric; a fourth illumination source proximate to the fourth integral navigation and alphanumeric key, in order to reduce the size of the apparatus and regroup various

functions under multifunction keys by having a mode change that selectively lights the keys, as taught by Andre (see col. 1, lines 48-60).

Response to Arguments

5. Applicant's arguments filed 27 April 2005 have been fully considered but they are not persuasive.

Examiner respectfully disagrees with applicant's arguments as the applied reference(s) provide more than adequate support and to further clarify (see the above claims and comments in this section).

6. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Regarding applicant's argument of Claims 1 and 6 on pg. 5, sec. 1, 1st paragraph, "Wood fails to teach proximity or location", Examiner respectfully disagrees. Wood discloses the keys having an illuminating light (see col. 4, lines 31-35; Figs. 2-3), where the keys of the mobile telephone are illuminated in which there must be a light source in the proximity of the keys, therefore the light source being in the proximity of keys is inherent. As shown in Fig. 3 (see Wood), the key "5" is integrated with alphanumerical and navigational functionality (see col. 2, lines 43-53).

Regarding applicant's Fig. 1 drawing submitted on 27 April 2005, the limitation of the claim states, "...at least one illumination source proximate to the at least one integral

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navigation and alphanumeric key...” and applicant argues on pg. 5, sec. 1, “Wood does not teach location or proximity and the drawings do not reflect the location of the illuminating light...”, the Examiner respectfully disagrees. Although the Fig. 1 drawing appears to show the navigation mode as indicated by applicant on pg. 2, 1st paragraph, the Examiner requests applicant to show support of the location of the claimed illuminating source that applicant states is not supported by the applied references which have a lighting source(s) to illuminate the keys. Therefore, the rejection is maintained until further clarification is provided by applicant which explains the location of the illumination source claimed by applicant.

Also, regarding Claims 1 and 6, the Examiner respectfully requests the applicant to provide support such as page(s), line(s), and drawing(s) of the instant application (see pg. 5, lines 10-18) that indicates the location or proximity of the light source being claimed. Also, applicant’s argument of proximate or location, applicant admits on pg. 1 of instant application that “backlighting is provided on most mobiles to enhance the visibility of the keys and associated user interface graphical elements” which indicates that mobiles with a light source for keys and the graphical elements of the keys is well known in the art or common knowledge.

Regarding applicant’s drawing submitted on 27 April 2005, the limitation of the claim states, “...at least one illumination source proximate to the at least one integral navigation and alphanumeric key...” and applicant argues on pg. 5, sec. 1, “Wood does not teach location or proximity and the drawings do not reflect the location of the illuminating light...”, the Examiner requests applicant to see “Response to Arguments” section of this action.

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7. In response to applicant's argument that "...Wood clearly states a single purpose for the illuminating light, namely, improved visibility... (see pg. 6, sec. 2, 2nd paragraph), a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963).

Regarding the applicant's argument "...Wood clearly states a single purpose for the illuminating light, namely, improved visibility... (see pg. 6, sec. 2, 2nd paragraph), the Examiner respectfully disagrees. Wood (see col. 4, lines 31-35; Figs. 2-4) indicates a usefulness for illuminating the keys which coincides with the limitations of the claim and expandable to other uses that are well known in the art or common knowledge for illuminating keys such as to make the key visible and to highlight the graphical symbols.

8. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the applicant's argument on pg. 6, sec. 2,

“... Wood and Andre fails to suggest the desirability of having at least one illumination source...to distinguish between navigation mode and alphanumeric mode”, the Examiner respectfully disagrees. The combination of Hao, Wood, and Andre to meet the claimed limitations is clearly expressed in the rejections above. Both Hao and Wood teaches of having integrated alphanumeric and navigational keys which operate according to the functional or operational mode for input (see claims 1 and 6 rejections above). In addition, both Wood and Andre teaches of having an illuminating source for the keys (see claims 1 and 6 rejections above) which has also been admitted by applicant on pg. 6, sec. 2, line 1. Andre further teaches of distinguishing or lighting the symbol or indicia of the keys according to the two modes of operation (see claims 1 and 6 rejections above).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - a. Tomura et al. (US 6,771,992 B1) discloses a “Portable Telephone”.
 - b. Thayer (US 6,529,186 B1) discloses a “Method And System For Index Finger Controlled Pointing Device Positioned On Home Row Keys”.
 - c. Priesemuth (US 6,812,415 B1) discloses a “Multifunction Switch”.
 - d. Rapeli (US 6,677,541 B1) discloses a “Keyboard and Key and Telephone Apparatus With Such a Keyboard”.
 - e. Tso et al. (US 6,157,323) discloses a “Button-Key/Cylindrical-Key Alphabetizer”.


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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willie J. Daniel, Jr. whose telephone number is (571) 272-7907. The examiner can normally be reached on 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WJD,JR
27 July 2005


CHARLES APPIAH
PRIMARY EXAMINER